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IS 1793 (1973): Guide for marking textile materials made of wool [TXD 4: Wool and Wool Products]

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Indian Standard

GUIDE FOR MARKING TEXTILE MATERIALS MADE OF WOOL

(First Revision)

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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Gr 2 *August* 1973

AMENDMENT NO. 2 MARCH 2006
TO
IS 1793 : 1973 GUIDE FOR MARKING TEXTILE MATERIALS MADE OF WOOL

(First Revision)

(*Cover page*, *pages* 1 *and* 3, *Title*) — Substitute the following for the existing:

'TEXTILES — REQUIREMENTS FOR MARKING TEXTILES MATERIALS MADE OF WOOL — SPECIFICATION

(First Revision)'

(*Page* 3, *clause* 1.1) — Substitute the following for the existing matter:

'This standard specifies the requirements for marking textile materials containing not less than 20 percent of wool fibre.'

(*Page* 3, *clause* 2.1, *second line*) — Add the words '(Pashmina or Mohair)' after the words 'Angora goats'.

[*Page* 4, *clause* 3.1(a), (b) *and* (c), *first line*] — Substitute the word 'shall' *for* 'should'.

(*Page* 4, *clause* 4.1.1) — Substitute 'IS 1745 : 1978' *for* 'IS : 1745 - 1966'.

(*Page* 4, *footnote*) — Substitute '(*second revision*)' *for* '(*first revision*)'.

(*Page* 6, *clause* 4.2) — Substitute 'IS 2006 : 1988*', 'IS 6503 : 1988†' and 'IS 6504 : 1979‡' *for* 'IS : 2006 - 1962*', 'IS : 6503 - 1972†' and 'IS : 6504 - 1972‡' respectively.

(*Page* 6) — Add the following new clause after 4.2:

'5 MARKING

5.1 The material made of wool shall be marked with the following information:

a) Product description;
b) Blend composition and whether all wool, blended wool or part wool;
c) Batch No., Lot No. etc, for traceability;
d) Indication of the source of manufacture; and
e) Any other information as required under Law.

5.2 The product may also be marked with the Standard Mark

5.2.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations thereunder The details of conditions under which the licence for use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards

6 SAMPLING AND CRITERIA FOR CONFORMITY

6.1 It shall be as specified in the relevant product specification or as agreed to between the buyer and the seller '

(*Page* 6, *footnotes*) — Substitute the following for the existing

'*Method for quantitative chemical analysis of binary mixtures of protein fibres with certain other non-protein fibres (*second revision*).

†Method of quantitative chemical analysis of ternary mixtures of protein fibres, nylon 6 or 6 6 and certain other fibres (*first revision*).

‡Method of quantitative chemical analysis of ternary mixtures of viscose rayon, cotton and protein fibres (*first revision*).'

(TX 04)

Reprography Unit, BIS, New Delhi, India

Indian Standard

GUIDE FOR MARKING TEXTILE MATERIALS MADE OF WOOL

(First Revision)

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(*Continued on page* 2)

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(*Continued from page* 1)

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Indian Standard

GUIDE FOR MARKING TEXTILE MATERIALS MADE OF WOOL

(First Revision)

0. FOREWORD

0.1 This Indian Standard (First Revision) was adopted by the Indian Standards Institution on 27 February 1973, after the draft finalized by the Wool and Wool Products Sectional Committee had been approved by the Textile Division Council.

0.2 This standard which was first published in 1961 has been taken up for revision in order to make the terms simpler and clearer. The methods of test for determining the contents of wool and other fibres of the material have also been added.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off values should be the same as that of the specified values in this standard.

1. SCOPE

1.1 This standard is intended to provide guidance for application of terms to be used in marking textile materials containing not less than 20 percent of wool fibre.

1.2 It also lays down the methods for determining the contents of wool and other fibres of the material.

2. TERMINOLOGY

2.1 Wool Fibre — The fibres obtained from the fleece are coat of the sheep or lamb, Alpaca, Angora goat, Angora rabbit, camel, Himalayan goat, Llama and Vicuna, which have not been reclaimed from yarn or from knitted, woven or felted product.

NOTE — The wool fibres previous to their present use as a textile raw material shall not have been spun into yarn, woven or knitted into fabric or felted. As such permitted

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*Rules for rounding off numerical values (*revised*).

fibres include fleece wool, skin wool, wool fibres from soft untwisted waste, such as loosely connected wool fibres obtained as a by-product during carding or combing, broken tops, noils, roving waste, roller waste, but not flocks recovered during dry or wet finishing processes.

3. MARKING

3.1 Textile materials should be marked as given below on the basis of content of wool fibres:

a) *All Wool* — A textile material should be marked 'ALL WOOL' if the material comprises of wool fibres only subject to the tolerances given below:

   1) Manufacturing tolerance up to 3 percent of inadvertent impurities, and

   2) An allowance up to 5 percent of material other than wool fibres used to provide a decorative or ornamentation effect.

b) *Blended Wool* — The textile material should be marked 'BLENDED WOOL' if it contains not less than 50 percent of wool fibres. However, a manufacturing tolerance up to 3 percent on wool contents shall be permitted.

c) *Part Wool* — The textile material should be marked 'PART WOOL' if it contains not less than 20 percent wool fibres. However, a manufacturing tolerance up to 3 percent on wool contents shall be permitted.

NOTE 1 — All reference to the percentage contents mean percentages by mass calculated from the mass of materials when in standard condition, namely, their oven dry mass plus the appropriate regain.

NOTE 2 — In all cases the more detailed description of the contents of the material shall be given by indicating the percentages of the wool and other fibres in descending order used in the manufacture of the textile material. However, such a description should not be misleading.

4. METHODS OF TEST

4.1 For Textile Materials Marked 'ALL WOOL'

4.1.1 Take about 10 to 15 g of the material and extract it in a Soxhlet apparatus with light petroleum hydrocarbon solvent (*see* IS : 1745-1966*) for one hour at a minimum rate of 6 cycles per hour. Allow the light petroleum hydrocarbon solvent (*see* IS : 1745-1966*) to evaporate and then extract in a Soxhlet apparatus with water for two hours at a minimum rate of 6 cycles per hour.

4.1.2 Take a representative sample weighing about 5 g from the pre-treated sample and place it in a suitable container. Place the specimen in the drying oven maintained at a temperature of 105 ± 3°C and dry the sample to a constant mass. The mass shall be taken as constant when the difference between the two successive weighings made at intervals of 20 minutes is less than 0·05 percent.

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*Specification for petroleum hydrocarbon solvents (*first revision*).

4.1.3 Determine the mass of the sample without removing it from the oven. In case the drying oven is not provided with the weighing balance, remove the sample from the oven and transfer it to a weighing container of known mass provided with a light lid. The transference of the sample should be done in as less a time as possible. Cool the sample and the container in a desiccator to room temperature before weighing. Weigh the container and then find the mass (M_1) of the sample to an accuracy of 10 mg.

4.1.4 Examine the sample visually. If this reveals the presence of decorative yarns or fibres of non-wool composition in the sample, carefully dissect these fibres or yarns out and dry them to constant mass at 105 ± 3°C. Determine the mass to an accuracy of 10 mg (M_2).

4.1.5 Transfer the remaining sample in a beaker together with at least 100 times its mass of 5 percent solution of sodium or potassium hydroxide and boil slowly until the wool fibres become gelationous and dissolve. After a period of 10 minutes of boiling, filter through a Gooch crucible and wash the residue first with warm water, then with 3 percent solution of glacial acetic acid and finally with hot water. Dry the residue at 105 ± 3°C.

4.1.6 Examine carefully the residue and the pores of the crucible for non-fibrous matter, for example, burrs, seeds, finishing materials, dyestuff residues, as well as for incompletely dissolved wool. If any such contaminant is present, it shall be dissolved or otherwise removed. For example, undissolved wool protein shall be removed by treatment with fresh boiling 5 percent sodium hydroxide or potassium hydroxide; and burrs and seeds shall be lifted out with forceps. Rinse and dry the residue to constant mass at 105 ± 3°C. Determine the mass of the residue to an accuracy of 10 mg (M_3).

4.1.7 Determine the percentages of non-wool decorative fibres or yarns and non-wool fibres present as inadvertent impurities by the following formulae:

a) Percentage of non-wool decorative fibres

$$= \frac{M_2\,(100+x) \times 100}{M_2\,(100+x) + (M_1 - M_2)\,(100+y)}$$

where

x = percentage moisture regain for non-wool decorative fibres, and

y = percentage moisture regain for wool.

b) Percentage of non-wool fibres present as inadvertent impurities $= \frac{M_2 \times 100}{M_1}$

4.1.8 Similarly, determine the percentages in the remaining samples and calculate the average.

4.2 For Textile Materials Marked 'BLENDED WOOL' or 'PART WOOL' — The methods specified in IS : 2006-1962*, IS : 6503-1972†, IS : 6504-1972‡ and IS : 6570-1972§ shall be used for determining the percentage content of wool and other fibres in the textile materials.

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*Method for quantitative chemical analysis of binary mixtures of protein fibres and certain other fibres.

†Method for quantitative chemical analysis of ternary mixtures of protein fibres, nylon 6, or nylon 6 6 and certain other fibres.

‡Method for quantitative chemical analysis of ternary mixtures of viscose rayon, cotton and protein fibres.

§Method for quantitative chemical analysis of binary mixtures of jute and animal fibres.

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

Quantity	*Unit*	*Symbol*
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

Quantity	*Unit*	*Symbol*
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

Quantity	*Unit*	*Symbol*	*Conversion*
Force	newton	N	1 N = 1 kg 1 m/s^2
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m^2
Frequency	hertz	Hz	1 Hz = 1 c/s (s^{-1})
Electric conductance	siemens	S	1 S = 1 A/V
Pressure, stress	pascal	Pa	1 Pa = 1 N/m^2

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